



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

SW

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/987,379	11/14/2001	Ji Hyun Hwang	MRE-0040	6698

34610 7590 02/27/2004

FLESHNER & KIM, LLP
P.O. BOX 221200
CHANTILLY, VA 20153

EXAMINER

TRINH, MINH N

ART UNIT PAPER NUMBER

3729

DATE MAILED: 02/27/2004

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/987,379

Applicant(s)

HWANG ET AL.

Examiner

Minh Trinh

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-24 is/are pending in the application.
- 4a) Of the above claim(s) 22-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed in paper No. 7 (dated 8/22/2003) has been fully considered and made of record. Claims 5-21 read on the original claims 1-4, claims 22-24 are subject of the restriction by the following reasons:

Election/Restrictions

2. Newly submitted claims 22-24 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

a) The scope of the original invention (claims 5-21) directed to a feeder.

However, the scope of the newly added claims 22-24 directed to a device other than "the feeder " such as "a surface mounting device" which is clearly distinct from the original invention (i.e., claims 5-21).

b) Further, claims 5-21 and claims 22-24 are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention of claims 22-24 has separate utility such as different modes of operation, different functions, or different effects. See MPEP § 806.05(d). For above reasons, claims 22-24 have not been considered on the merits.

Note that Applicants are not entitled to examination of multiple independent inventions in one application.

Since applicants have received an action on the merits for the originally presented invention, this invention has been constructively elected by original

presentation for prosecution on the merits. Accordingly, claims 22-24 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

An Office action on the merits of claims 5-21 follows.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 6 -11 and 12-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The following are examples:

It is unclear whether the recites "forward/backward"(see claim 6, line 2) is being referring as " forward " or "backward" and/or "both". Please clarify.

It is not know what is being referred as "via" (see claims 12, 15 and 18, line 2). For better clarification of the claimed subject matter, the use of "by" in place of "via" is suggested.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3729

6. Claims 5, 12 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Weber et al (US 5,725,140). Weber et al disclose a feeder for surface mount device comprising: mainframe 10, a parts feeding unit 10 having a vinyl separation unit and a vinyl recovery unit (see Fig. 1) a drive system 50 operatively associated the feeder to drive each of the parts feeder 10 and the vinyl separation unit and the vinyl recovery unit (see Fig. 1, and the discussed at col. 4, lines 23-25). It is noted that reference 50 and 52 represented the claimed " a drive system" of the present invention.

Limitation of claim 12 is also met by Weber et al (see Fig. 1, shows the parts feeding being communicated with the drive system by a first gear train 50).

As applied to claim 20, Weber et al disclose that the vinyl separation unit and the vinyl recovery unit (see Fig. 1) are driven synchronization (or at the same time) by the drive system 50.

7. Claims 5, 6, 11-12, 15, 18, 19 and 20 are rejected under 35 U.S.C. 102(a) as being anticipated by Hawkswell (US 4,687,152).

Hawkswell discloses a feeder for surface mount device comprising: mainframe 30, a parts feeding unit 36 having a vinyl separation unit 68 and a vinyl recovery unit 70 (see Figs. 2-3, and the discussed at col. 5, lines 5-10), a drive system operatively associated the feeder to drive each of the parts feeder including the vinyl separation unit 68 and the vinyl recovery unit 70 (see Fig. 2). It is noted that references 68 and 70 are broadly readable on "a vinyl separation unit and a vinyl recovery unit " as claimed by the present invention.

Art Unit: 3729

As applied to claims 6 and 11, Hawkswell discloses the drive system comprising a forward rotational force-generating device 52 (see Fig. 2 and the discusses col. 5, lines 65-col. 6, line 5), and the force generating device 52 being between the parts feeding 36 and the vinyl separating unit 68 (see Fig. 2, shows the described the configurations above).

Limitation of claim 12 is also met by Hawkswell (see Fig. 2, this figure depicts the parts feeding 36 is in rotational communication with the drive system 52 by at least one of driven wheels 50, 46 (gear train).

As applied to claims 15, 18 and 19, Hawkswell discloses the separation unit 68 being associated with at least a second gear train such as 46 (see Fig. 2) and the drive system by the second gear drive 46 and a belt 48 as recited in claims 18-19 (see Fig. 2). Noting the reference 46 of Hawkswell represented a second gear train as claimed by the present invention).

As applied to claim 20, Hawkswell shows the vinyl separation unit 68 and the vinyl recovery unit 70 being driven synchronization (same time) by the drive system 52.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3729

9. Claim 7 as understood is rejected under 35 U.S.C. 103(a) as being unpatentable over Weber et al or Hawkswell.

Weber et al or Hawkswell as applied and relied upon above do not teach the associated forward/backward force generating device comprises a permanent magnet unit positioned adjacent a plurality of armature coils as recited in claim 7. However, it would have been an obvious matter of design choice to choose any desired force generating device such as one as described above since applicant has not disclosed that the above feature is critical, patentably distinguishing features and it appears that the invention would perform equally well with the force generating device as shown in the prior art references (see Fig. 2, reference 50 of Weber and/or Fig. 2 reference 52 of Hawkswell).

10. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weber et al or Hawkswell in view of Witte (US 6,162,007).

Weber et al or Hawkswell as applied and relied upon above do not teach the use of a positioning sensor to sense a rotational position of a drive gear of the drive system as recited in claim 21. Witte discloses such concept for example: the use of a sensor 45 (see the discussion at col. 17, lines 15-20 and col. 18, lines 1-6). Therefore, it would have been obvious to one ordinary skill in the art, at the time of the invention to modify the structure invention of Weber or Hawkswell by employing the teaching of Witte's position sensor for positioning and controlling of component in order to obtain a desired

Art Unit: 3729

feeder unit. The motivation for these combination references being discussed at col. 13, lines 26-39 of Witte reference).

Response to Arguments

11. Applicant's arguments with respect to claims 5-21 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

12. Claims 8-10, 13-14 and 16-19 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: The combination of prior art references does not teach or suggest the subject matter as set forth in claims 8-10 and 15-19 of the present invention.

Interviews After Final

13. Applicants note that an interview after a final rejection will not be granted unless the intended purpose and content of the interview is presented briefly, in writing (the agenda of the interview must be in writing). Such an interview may be granted if the examiner is convinced that disposal or clarification for appeal may be accomplished with only nominal further consideration. Interviews merely to restate arguments of record or

Art Unit: 3729

to discuss new limitations which would require more than nominal reconsideration or new search will be denied. See MPEP 714.13 and 713.09.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Prior art references are cited for their teaching of a feeder device for surface mounting apparatus.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Trinh whose telephone number is (703) 305-2887. The examiner can normally be reached on Monday -Thursday 8:00 am to 4:30 pm.

Art Unit: 3729

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (703) 308-1789. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-7307 for regular communications and (703) 305-3579 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.

A handwritten signature in black ink, appearing to read 'M. Trinh', with a long horizontal stroke extending to the right.

M. Trinh
Patent Examiner Group 3700

mt
February 16, 2004